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Updated: July 11, 2014

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MSDS No. : MS-00174701-01

SECTION 1 IDENTIFICATION

MANUFACTURER TAIYO INK MFG. CO., LTD.

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Saitama, 355-0215 JAPAN

DISTRIBUTOR

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SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS CAS No. CONTENTS (%) OSHA ACGIH (TLV) (PEL) 5131-66-8 Propylene glycol n-butyl ether < 21% N.A. N.A. < 2% ${\tt dust} \ 15{\tt mg/m3}$ Titanium dioxide 13463-67-7 $10 \, \text{mg/m}$ Talc containing no asbestiform fibers 14807-96-6 < 12% 20mppcf 2mg/m3(RAluminium hydroxide 21645-51-2 < 12% N. A. dustTLV10mg/m3 Carbon black 1333-86-4 < 3% $3.5 \,\mathrm{mg/m3}$ $3.5 \, \text{mg} / \text{m} 3$ Silica, amorphous Trade secret < 3% Ν. Α. dustTLV10mg/m3

SECTION 3 HAZARDS IDENTIFICATION

INHALATION : Highly concentrated vapor irritates nose, throat and lungs.

May cause headache and dizziness.

EYE CONTACT : Moderately irritation SKIN CONTACT : Moderately irritation INGESTION : Harmful, if swallowed.

SECTION 4 FIRST AID MEASURES

 $\hbox{SKIN CONTACT} \qquad \hbox{: Wash with plenty of running water using a mild soap. Do not use} \\$

organic solvents.

EYE CONTACT : Rinse immediately with clean water for at least 15 minutes.

If irritation persists, seek medical attention.

INHALATION : Immediately carry the victim to a place where fresh air is available.

If irritation persists, treat with oxygen and seek medical attention.

INGESTION : Obtain medical advice immediately. It is not recommended that

vomiting be induced except on medical advice.

SECTION 5

FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA : Carbon dioxide, foam, powder.

UNSUITABLE EXITINGUISHING MEDIA: Water spray and water jet.

EXPOSURE HAZARDS

: Burning may release oxides of carbon, nitrogen,

sulphur and other toxic gases or vapors. Do not release chemically contaminated water into drains or surface waters. Dispose of contaminated waters and soil

according to local regulations.

PROTECTIVE EQUIPMENT

FOR FIREFIGHTERS

MEASURES

: Use full protective clothing and self-contained

breathing apparatus.

: Promptly move transferable containers to another

safety area. Check the speed and spread of fire. Extinguish the fire with suitable

extinguisher from the windward side.

SECTION 6

ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTION

: Avoid ignition sources. Avoid contact with skin, eyes

and clothing. Avoid inhalating vapor.

ENVIRONMENTAL PRECAUTIONS

METHODS FOR CLEANING

: Prevent contamination of soil, drains and surface waters

: Scoop up or absorb into combustible material, wipe out

a stain in use organic solvents. Dispose in accordance

with local regulations.

SECTION 7

HANDLING AND STORAGE

HANDLING

: Handle with care. Avoid ignition sources. Ensure good ventilation and local exhaust. Do not smoke at the

STORAGE

: Store in the original sealed container at less than $25\,^{\circ}\mathrm{C}$. Avoid direct exposure to UV and sunlights.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

People who know they are chemically sensitive, should avoid contact with this

product.

TECHNICAL PROTECTIVE MEASURES : No special safety measures required.

EXPOSURE CONTROL LIMITS : (See PEL and TLV values shown in section 2) RESPIRATORY PROTECTION : Wear suitable mask to avoid inhalation of vapor.

HAND PROTECTION : Wear chemical resistant gloves.

EYE PROTECTION : Wear safety glasses.

SKIN PROTECTION : Wear suitable protective working cloths.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT : *170°C (760mmHg) COLOR : Black FLASH POINT : 79.8℃ (Seta C.C.) FORM : Paste

VAPOR PRESSURE : * 0.60mmHg(20℃) VAPOR DENSITY : * 6.12 (Air=1)SOLUBILITY IN WATER : *< 16.0wt% : Mild odor ODOR SPECIFIC GRAVITY: 1.1 - 1.3

*Data of the organic solvents or monomers contained in this product is quoted.

SECTION 10

STABILITY AND REACTIVITY

STABILITY : Stable

CONDITIONS TO AVOID : Heat and sunlight.

MATERIALS TO AVOID : Strong acids, strong bases, peroxids and strong

oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Burning may release oxides of carbon, nitrogen,

sulphur and other toxic gases or vapors.

SECTION 11 TOXICOLOGICAL INFORMATION

PRIMARY ROUTE(S) OF ENTRY

■ DERMAL ■ INHALATION □ INGESTION

TOXICITY STUDIES : Toxicity studies have not been carried out on this

product. Toxicity information available for the ingredients listed in section 2 is given below.

HEALTH HAZARDS

ACUTE INGESTION TOXICITY : N.E.

ACUTE SKIN IRRITATION : Slightly irritant

MUTAGENICITY : NONE

CARCINOGENICITY

■NTP ■ IARC □ OSHA □ NOT LISTED

Titanium dioxide and Carbon black

mentioned at Section 2 is classified to a carcinogen, because of the specific state furnished in a powder form and which causes lung cancers, due to the direct inhalation. This case, it is mixed together with other substances and which is furnished in a liquid preparation, having no capability of allowing any direct inhalation of

Titanium dioxide and Carbon black

itself. This material furnished in a liquid preparation has no potential to cause any lung cancers.

SYMPTOMS OF OVER EXPOSURE

INHALATION : Slight irritation to respiratory tract. Highly

concentrated vapor may cause headaches, dizziness,

and nausea.

EYES : Moderately irritation SKIN : Moderately irritation

 $\hbox{INGESTION} \qquad \qquad \hbox{: Expected to have a low order of toxicity.}$

SECTION 12 ECOLOGICAL INFORMATION

ACUTE FISH TOXICITY : Ecological data are not available

BIODEGRADABILITY : U.K.

SECTION 13 DISPOSAL CONSIDERATIONS

Incineration or landfill in accordance with local regulations.

SECTION 14 TRANSPORT INFORMATION

IMDG-CODE : Free IATA : Free UN : Free

FLASH POINT : 79.8°C (Seta C.C.)

SECTION 15

REGULATORY INFORMATION

EEC LABELING: Xi=Irritant

RISK PHRASES: R36/38 - Irritating to eyes and skin.

SAFETY PHRASES: N. A

TSCA: □ on TSCA □ on LVE □ NOT LISTED

EINECS: □ on EINECS □ on ELINCS □ NOT LISTED

SECTION 16 OTHER INFORMATION

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

It may not be valid for this material, if used in combination with any other materials.

Data provided in Section 11,12 and 15 are quoted from raw materials MSDSs.

Please kindly contact to our local sales of fice/distributor in case if you plan to export this product before use.